

## **Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)**

**R. E. Wilkinson, Vice President, Central Plateau  
Deactivation & Decommissioning/(509) 373-9841**

**B. H. Ford, Vice President, Soil and Groundwater  
Remediation/(509) 372-8123**

**R. G. Slocum, Vice President,  
Closure Services and Infrastructure/(509) 372-1843**



*L-626, 100B Export Water  
Reliability Enhancements, removal  
of pumps at 182-B pumphouse*

## Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Central Plateau Deactivation & Decommissioning (D&D) [R. E. Wilkinson],
- Waste Sites Remediation [B. H. Ford], and
- Reliability Projects [R. G. Slocum].

NOTE: Unless otherwise noted, all information contained herein is as of the end of October 2007.

## Notable Accomplishments

### Central Plateau D&D

#### 200-UW-1 U Plant Zone Waste Site Remediation

- Justification of the STOMP model (Volume I) and the Remove, Treat, and Disposal (RTD) Technical Basis document (Volume II) are in the RL review process.
- Initiated Desk Top Characterization of 200-UW-1 cribs.
- Initiated Treatability Test Plan (TTP) and Data Quality Objective (DQO).
- Completed 241-U-361 liquid composite analysis.
- Sludge sample analysis >90 percent complete.

#### 221-U Canyon Facility

- Finalized the Remedial Design/Remedial Action Work Plan (RD/RAWP) Draft B and transmitted to RL for regulator approval. A revised Draft B redline/strike out to further address the applicable or relevant and appropriate requirement (ARARs) related to spill response plans was resubmitted at RL's request on October 31, 2007.
- The Environmental Protection Agency (EPA) has extended the period for its review of RL responses on a draft Agreement-in-Principle (AIP) for Central Plateau facility disposition by an additional 90 days until November 19, 2007.

#### 231-Z Inventory Reduction

- Completed Documented Safety Analysis (DSA) Revision.
- Prepared procurement specification for glovebox shipping containers.
- Prepared Contaminated Equipment Special Packaging Authorization (CE SPA).
- Performed high-efficiency particulate air (HEPA) filter removal mock-up activities.
- Conducted enhanced As Low As Reasonably Achievable (ALARA) Committee review of HEPA filter removal activities.

### Waste Site Remediation

- Submitted Ecological Risk Assessment Decisional Draft to RL.
- Completed 200-BC-1 Phase I Treatability Test sampling.
- Installed and logged 24 direct push technology (DPT) holes and 27 of a planned 30 step-off holes for 216-B-26 Trench characterization.
- Submitted Sampling Analysis Plan (SAP) for 200-BC-1 electrical resistivity characterization to RL.
- Issued annual Hanford Barrier Monitoring letter report.

### Reliability Projects

- Installed horizontal pumps at 182-B pump house (Project L-626, "100-B Export Water System Reliability Enhancements").
- Awarded contract for preparation of the DOE Order 430.1B, "Real Property Asset Management, Hanford Ten-Year Site Plan."
- Awarded construction contract for Project L-638, "2266E Facility Air Quality Modifications."

## FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 87.8	\$80.9	\$ 6.8

## Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$4.3	\$4.1	\$2.9	-\$0.1	-3.1%	\$1.3	31.0%	\$72.0
Cumulative-to-Date (FY 2004-Present)	\$259.9	\$254.4	\$250.9	-\$5.5	-2.1%	\$3.5	1.4%	\$327.6

Numbers are rounded to the nearest \$0.1M.

### CTD Schedule Performance (-\$5.5M/-2.1%):

The unfavorable schedule variance (SV) for the Central Plateau D&D Project (CP D&D) organization (-\$1.0M) is due to:

- Delays in 200-UW-1 U Zone Waste Site Remediation on the Phase II U-361 Tank sampling resulting from prior sampling truck equipment failure (-\$0.9M), this variance will self correct. Also due to delays in vadose zone characterization due to critical resources working on remedial action goals which is considered a higher priority.

The unfavorable schedule variance for Waste Site Remediation (-\$4.6M) is due to the following:

- Delays in field work tied to CW-1 characterization waiting for Washington State Department of Ecology (Ecology) to approve the Sampling Analysis Plan (SAP) (-\$2.5M). This work scope will be replanned for FY 2008.
- Delays in drilling of the 200-MW-1 A-2 borehole and subsequent sample analysis due to delayed regulator approval of the SAP, and slow drilling progress through high-rad zones (-\$0.6M); recoverable in FY 2008; no impact to milestone completion date.
- Reduced requirements for Engineering Studies (-\$0.4M). This scope is being re-evaluated for possible replanning in FY 2008.
- Various delays in field characterization efforts across several Operable Units.

The SV for reliability projects is within established thresholds.

## Schedule/Cost Performance (\$M), continued

### CTD Cost Performance (+\$3.5M/+1.4%):

The favorable cost variance (CV) for CP D&D (+\$2.6M) is primarily due to the following factors:

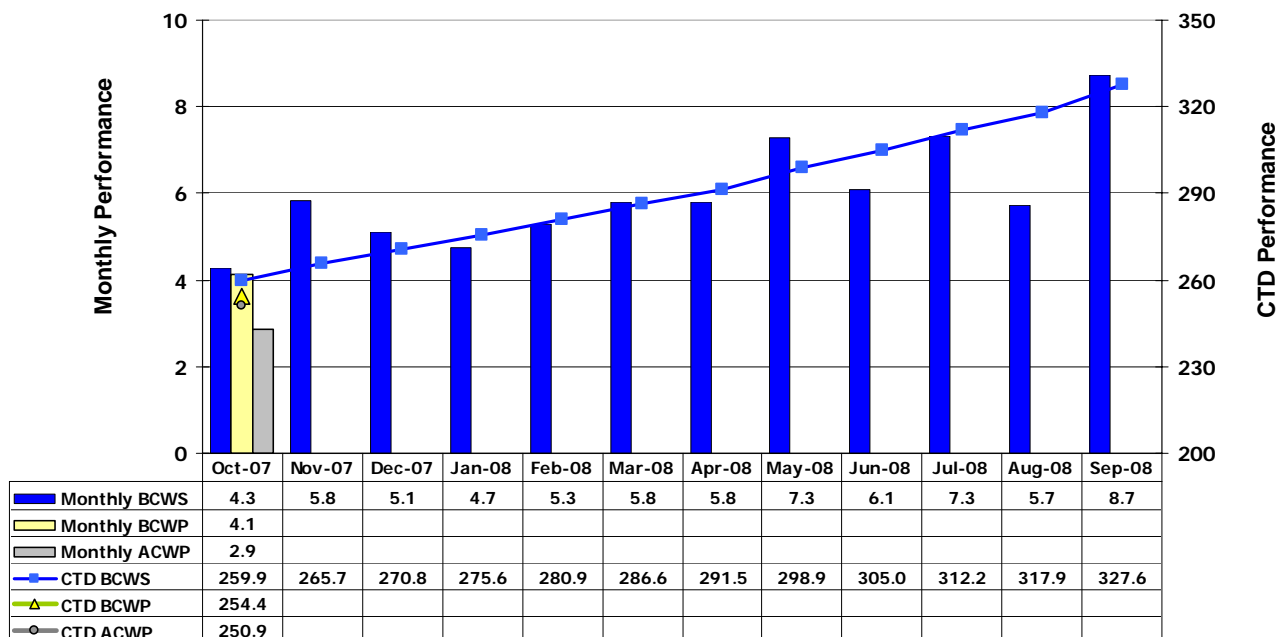
- Prior year cost overruns in 200-UW-1 U Zone Waste Site Remediation (-\$4.6M) resulting from:
  - Additional direct push sampling during field investigation to determine contamination levels.
  - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
  - Delays in barrier construction without reductions in staffing levels.
  - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to ERDF than planned.
- Prior year efficiencies in staff resulting from not replacing budgeted staff and loaned labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years (+\$2.9M).
- Prior and current year variance distributions (passbacks) in Project Management & Support (\$4.3M).

The favorable CV for Reliability Projects (\$0.5M) is primarily due to the following factors:

- Increase in steel prices for prior-year facility and water projects (-\$3.0M).
- Prior year telecommunication projects technology deployment (-\$0.5M).
- Offset by favorable bids and underruns in Project L-325, *A-8 Substation*, (+\$1.5M), capital equipment procurements (+\$0.9M), road refurbishments (+\$0.7M), L-429, *12-Inch Water Line Mortar Lining Along 4<sup>th</sup> Street from Baltimore to Canton* (+\$0.5 M), and other miscellaneous (+\$0.4M).

The favorable CV for Closure Services (+\$0.9M) is within established thresholds.

### Performance Analysis CTD and Monthly (\$M)



## Milestone Achievement

MSN	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
M-015-45B CPDD-07-006	Submit Draft A Feasibility Study and Proposed Plan for the 200-PW-1/3/6 Operable Unit Group.	HQ	9/30/07	9/28/07		Completed ahead of schedule
CPDD-07-007	Central Plateau Cleanup and Configuration Control Specification document	RL	9/30/07	9/27/07		Completed ahead of schedule
M-13-28 CPDD-07-013	Submit a revised RI/FS Work Plan for the 200-SW-1 and 200-SW-2 OUs	RL	9/30/07	9/13/07		Completed ahead of schedule
CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	RL	11/30/07	10/25/07		Completed ahead of schedule
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	HQ	11/30/07			On schedule
CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	RL	12/31/07		12/14/07	Forecast ahead of schedule
M-091-40L-017	M-91-40L.5.A Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2008)	HQ	2/29/08			On schedule
CPDD-07-010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	RL	3/30/08			On schedule
CPDD-08-001	241-U-361 Settling Tank Characterization and Sampling completed	RL	3/31/08		2/29/08	Forecast ahead of schedule
M-091-40L-018	M-91-40L.5.B Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2008)	HQ	5/30/08			On schedule
CPDD-08-004	Complete phase 2a of the BC Cribs and Trenches Treatability Test Plan	RL	7/31/08			On schedule
M-091-40L-019	M-91-40L.5.C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2008)	HQ	8/29/08			On schedule
CPDD-08-003	Complete characterization of potential contamination plume in the BC Cribs and Trenches	RL	8/30/08			On schedule
CPDD-08-006	Complete 231Z nuclear facility hazard reduction	RL	9/30/08		3/24/08	Forecast ahead of schedule